

---

**U.S. DEPARTMENT OF ENERGY**  
**OFFICE OF ENVIRONMENTAL MANAGEMENT**

---



**Technical Capability Program  
Procedures**

**Rev. 1  
October 2000**

---

**Office of Management and Information  
Office of Resource Management**

## **APPROVAL**

The Office of Environmental Management (EM) Office of Resource Management (EM-7.1) is responsible for overseeing the EM Technical Capability Program (TCP) and the subset Senior Technical Safety Manager/Advisor (STSM/A) Program. The Principal Deputy Assistant Secretary for EM has final approval authority for all internal EM documents related to the TCP and STSM/A Program.

Approval of this Procedure by the appropriate Principal Deputy Assistant Secretary is indicated by signature below.

---

James M. Owendoff,  
Principal Deputy Assistant Secretary for  
Environmental Management

---

Date

**Technical Capability Program Procedures  
for  
The Office of Environmental Management Headquarters**

**Table of Contents**

1. PURPOSE .....	1
2. APPLICABILITY .....	1
3. REFERENCES AND DEFINITIONS .....	1
a. References .....	1
b. Definitions .....	2
4. RESPONSIBILITIES .....	3
a. Assistant Secretary, Office of Environmental Management .....	3
b. EM Capability Agent .....	3
c. Deputy Assistant Secretaries .....	3
d. Office Directors .....	4
e. Office of Resource Management (EM-7.1) .....	4
f. Peer Panel .....	4
g. Volunteering TCP participants .....	4
5. GENERAL REQUIREMENTS .....	5
6. PROCEDURE .....	5
a. Enrollment in the Technical Capability Program (TCP) .....	5
b. Qualification Package .....	9
c. Approval of Qualification Package .....	11
d. Developmental Activities .....	11
e. Evaluation and Approval of Employee's Technical Capability .....	12
7. RECORDS .....	12
8. REPORTING .....	13

## 1. PURPOSE

The intent of the Technical Capability Program (TCP) is to establish a formal program to enhance the technical capability of EM Headquarters professional personnel and to promote overall technical excellence in order to more effectively support the EM mission and better ensure the protection of workers, the public, and the environment. This procedure provides the necessary information for implementing the Department of Energy's TCP for the Headquarters Office of Environmental Management (EM).

## 2. APPLICABILITY

This procedure applies to all Department of Energy Headquarters technical employees and managers assigned to EM who provide direct or indirect technical support involved in the management, direction, or oversight that could impact the safe operation of defense nuclear facilities.

This procedure does not apply to non-bargaining unit managers who are in critical or Senior Technical Safety Manager/Advisor (STSM/A) positions for whom the TCP is mandatory and falls under qualifying as a STSM/A. It is, rather, a procedure to be followed for those who wish to volunteer to participate. All technical employees and managers are invited to participate. The TCP assumes that participants in the program met the qualification requirements established in the OPM Qualification Standards Operating Manual when they were hired.

## 3. REFERENCES AND DEFINITIONS

### a. References

- i. DOE Order 360.1A, *Federal Employee Training*, September 1999.
- ii. DOE Manual 360, 1A-1, *Federal Employee Training Manual*, September 1999.
- iii. Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 93-3, *Improving DOE Technical Capability in Defense Nuclear Facilities Programs* June 1993.
- iv. DOE Revised Implementation Plan for Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 93-3, *Improving DOE Technical Capability in Defense Nuclear Facilities Programs*, May 1998.
- v. *Environmental Management Technical Capability Program Implementation Plan*, December 1998.

**b. Definitions**

- i. DOE Functional Area Qualification Standards (FAQS) - A list of duties, responsibilities, competency statements, and supporting knowledge and skill statements that are specific to a technical functional area that provides technical management, oversight, or operation of a defense nuclear facility. These qualification standards build on the competencies established in the technical base qualification standards and are based upon a functional analysis of general position requirements and accepted practices. The Assistant Secretary for Management and Administration (MA) is responsible for coordinating the development and maintenance of the Department-wide technical specialist qualification standards.
- ii. DOE General Technical Base Qualification Standards (GTBQS) - Specific knowledge and skill requirements (categorized in topical areas) based upon related industry practices and management direction. The Assistant Secretary for MA is responsible for coordinating the development and maintenance of the technical-base qualification standards. The General Technical Base Qualification Standard consists of competency statements in eight fundamental technical areas. Completion of these requirements helps to ensure that participants are prepared to meet the next level of competency requirements contained in the Function Area Qualification Standards.
- iii. Exemptions - An exemption is a written release from the requirement to meet a competency prescribed in a qualification standard. Qualification exemptions may be granted when the candidate does not need the skills or knowledge associated with a specific competency in order to carry out his/her duties and responsibilities assigned to the position. Exemptions are requested by the participant and are part of the participant's technical capability record.
- iv. Equivalencies - Satisfactorily meeting a specific competency through prior training, education or experience that provide knowledge, skill, and ability of equal value to that acquired by training or other learning activities. Equivalencies are requested by the participant and are part of the participant's technical capability record.
- v. Office-Specific Standard (OSS) - A list of duties, responsibilities, competency statements, and supporting knowledge and skills specific to an individual office and/or facility. The standard is developed and approved by office management. This qualification standard is built on the assigned DOE Functional Area Qualification and is based upon an analysis of specific requirements associated with the position.

- vi. Technical Capability - The process used to determine whether personnel performing oversight of defense nuclear facilities possess the necessary knowledge, skills, and abilities to effectively perform their specific duties and responsibilities.
- vii. Technical Capability Record (TCR) - The documentation of competency statement exemption, equivalency, or completion for a TCP participant.
- viii. Technical Employee Capability Recordkeeper (TECR) - The database application used by: participants to document their Technical Capability Record (TCR) and see their progress; supervisors to review and approve their staff's progress through the program; and administrators to provide high level detail and summary reports.

#### **4. RESPONSIBILITIES**

**a. Assistant Secretary, Office of Environmental Management shall:**

- i. Have overall responsibility for assuring implementation of this procedure.
- ii. Delegate responsibility to the EM Capability Agent for implementation of the TCP.

**b. The EM Capability Agent shall:**

- i. Provide liaison activities between EM HQ and the Federal Technical Capability Panel (Panel).
- ii. Coordinate with the Office of Resource Management (EM-7.1) to manage and administer the Technical Capability Program.

**c. Deputy Assistant Secretaries shall:**

- i. Approve volunteer participants' enrollment in the TCP and notify EM-7.1 of the approval, or disapprove of enrollment and perform no further action.
- ii. Approve participants' qualification standards selection, equivalencies, exemptions, and chosen training for participants in their organization who they supervise.
- iii. Approve participants' completion of the TCP for participants in their organization whom they supervise.
- iv. Oversee the development of the OSS for their organization.

**d. Office Directors shall:**

- i. Approve voluntary participants' enrollment in the TCP and notify EM-7.1 of the approval, or disapprove enrollment and perform no further action.
- ii. Approve participants' qualification standards selection, equivalencies, exemptions, and chosen training for participants in their organization whom they supervise.
- iii. Approve participants' completion of the TCP for participants in their organization whom they supervise.
- iv. Ensure the development and implementation of accurate OSSs for their area of responsibility that feed into the organization's OSS.

**e. Office of Resource Management (EM-7.1) shall:**

- i. Administer the TCP for the Office of Environmental Management.
- ii. Maintain TCP enrollment, reporting, and statistics and provide reports, as needed, to EM-1, Deputy Assistant Secretaries, MA, and the Panel.
- iii. Facilitate the development of EM Headquarters OSSs, MGTBQS, and MFAQS.
- iv. Maintain and upgrade the TECR data base for documenting participants' TCRs.
- v. Assist participants in identifying learning activities for TCP qualification.
- vi. Facilitate the acquisition of subject matter experts to serve as peer panel members for reviewing and approving participants' TCRs.

**f. Peer Panels shall:**

- i. Review and comment/approve participants' qualification packages and subsequent TCRs.

**g. Volunteering TCP participants shall:**

- i. Request and acquire approval from supervisor for TCP participation and selection of FAQS.
- ii. Complete self-evaluation against approved FAQS, record in TCR in the TECR application, and assemble with required background documentation.

- iii. Complete the training, education, self-study and other learning activities and/or complete performance demonstrations to achieve the competencies applicable to the approved qualification standards.
- iv. Once qualified, maintain technical competence through continuing training, education, special work assignments, and other learning activities. Continuing training activities shall be documented in accordance with DOE Order 360.1A, Federal Employee Training, September 1999 and the Individual Development Plan (IDP).

## **5. GENERAL REQUIREMENTS**

- a. All employees are invited to participate in the voluntary program and shall tailor their participation to the mission of their respective organizations.
- b. Participants completing qualification requirements shall receive a certificate of completion from EM-7.1.
- c. All qualification equivalencies and exemptions to the requirements of the qualification standards, at a minimum, shall be documented and approved by the participant's immediate supervisor. Second level supervisors should review qualification records periodically to ensure equivalencies and exemptions are being applied equitably.
- d. Participants who obtain qualification will continue their professional development through participation in continuing training, education, field experiences, job rotations and related activities that meet specific learning objectives as defined in the qualification standards and IDP's.

## **6. PROCEDURE**

- a. **Enrollment in the Technical Capability Program (TCP)**
  - i. Program Structure: The foundation of the program relies on the pyramid shown in Figure 1, *The Technical Capability Qualification Standards Hierarchy*, which illustrates the hierarchy of qualification standards adopted by EM. Whether EM Headquarters employees volunteer to participate in the EM TCP or whether it is mandatory based on the position he or she holds, all employees participating in the TCP are required to meet the challenge of the levels of qualification requirements, which are described. Prior to request for enrollment, a participant must have a plan for completion which includes their choice(s) of FAQs and OSS where available as they are under development.



- (1) *General Technical Base Qualification Standard (GTBQS)* - Specific knowledge and skill requirements (categorized in topical areas) based upon related industry practices and management direction. All participants are required to meet the GTBQS.
- (2) *Modified General Technical Base Qualification Standard (MGTBQS)* - In addition to the GTBQS, EM will have EM-specific competencies (i.e. "Paths to Closure," "Integrated Planning, Accountability, and Budgeting System (IPABS)," etc.). Currently EM does not have a set of MGTBQS, but will have in the near future. All participants will be required to meet the MGTBQS when they are available.
- (3) *DOE Functional Area Qualification Standards (FAQS)* - A list of duties, responsibilities, competency statements, and supporting knowledge and skill statements that are specific to a technical functional area that provides technical management, oversight, or operation of a defense nuclear facility. Each participant is required to select one "specialty" FAQS that pertains to the work they are currently performing (e.g., a technical employee who works on waste management issues would be required to meet the requirements of the Waste Management FAQS).
- (4) *EM Modified Functional Area Qualification Standards (MFAQS)* - FAQS that will suit Headquarters functions. Conceptually, the standards will be less technical and more programmatic in nature, and will supplement the Departmental FAQS. Currently EM does not have a set of MFAQS, but will have in the near future. Participants who select a primary and/or secondary FAQS will be required to meet the qualifications of the supplemental MFAQS when they are available.
- (5) *EM Office-Specific Standard (OSS)* - a list of duties, responsibilities, competency statements, and supporting knowledge and skills specific to an individual office. EM is in the process of developing the OSS, and they will be available in the near future. A TCP participant will be required to meet the OSS, if one exists for his or her office when they are available.

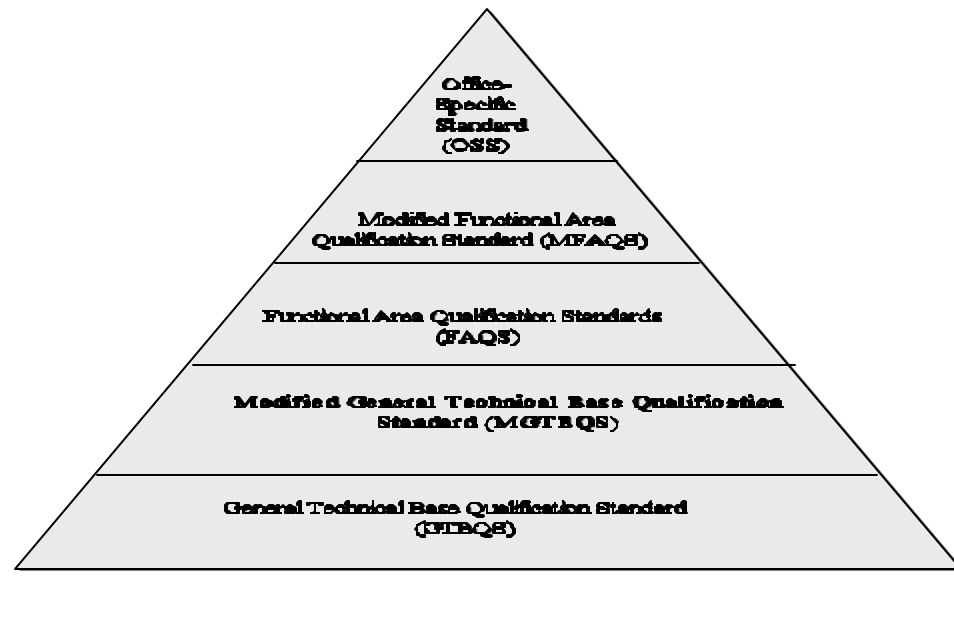
*Technical Capability Qualification Standards Hierarchy*

Figure 1

- ii. Enrollment: Technical (supervisory and staff) employees who wish to participate in the TCP will request participation in the program, discuss their selection of FAQS, their appropriateness to the work being performed, and the participant's approach to, and anticipated completion of, the TCP. See Figure 2, *Enrollment Flow Diagram*, for an illustration of the enrollment process.
- (1) Technical employee discusses plan of action and requests participation in the TCP with supervisor.
  - (2) Supervisor approves or disapproves participation.
    - (a) *If supervisor approves*, he or she will approve the employee's participation. If the supervisor does not agree on the qualification selection, the supervisor and employee will work together to select qualification standards that meet the employee's technical capability enhancement needs as well as the needs of the organization.
    - (i) The supervisor will provide, by e-mail, a request to EM-7.1 to enroll the employee into the program, along with the selected FAQS

- (ii) EM-7.1 will request EM-7.2 to add the participant to the list of users for the TECR<sup>1</sup> and to have TECR installed on the user's workstation.
- (b) *If supervisor does not approve*, he or she will provide a justifiable reason to the employee and the employee will not participate in the TCP.

---

<sup>1</sup>TECR is an application used to administer TCP participants' Technical Capability Records (TCRs), and track individual and organizational progress. There is a separate user's manual issued to each participant when they enter the program.

---

## Enrollment Process Flow Diagram

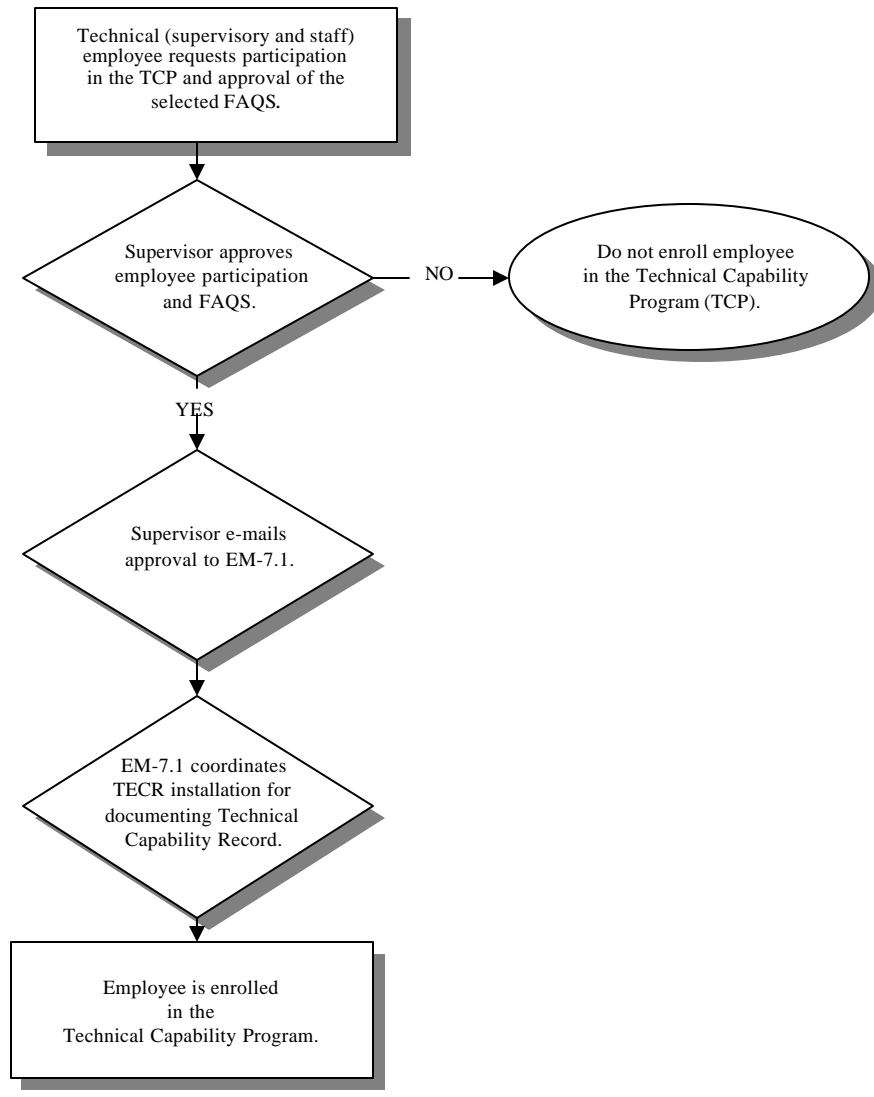


Figure 2

**b. Qualification Package**

Once an employee is accepted into the program, he or she is required to submit a qualification package that demonstrates their technical competence. The TCP qualification package that all participants must provide, whether participation is mandatory or voluntary, consists of two parts: background material that illustrates experience and education and a self-evaluation to be documented in TECR. Figure 3, *Qualification Package Process and Content Requirements*, illustrates how to assemble a qualification package for the TCP.

- i. **Background Material:** Background material includes the following: position description (for the position occupied, not position of record), resume or SF-171/OF-615, training records, and college transcripts.
  - (1) Participant is required to gather all background material and submit along with self-evaluation to supervisor.
- ii. **Self-evaluation:** The self-evaluation is a measure of the participant's experience, training, and education against the selected qualification standards as described in the enrollment plan. The TECR application is designed to guide the participant through the self-evaluation process and create the employee's TCR, a requirement of the program. The TCR is the measure of an employee's technical competence.
  - (1) Participant addresses each competency within each qualification standard. Note: The Knowledge, Skills, and Abilities (KSAs) associated with each competency are *suggestions*, not *requirements*. The following is the self-evaluation process and criteria to be documented in TECR:
    - (a) Work first on the GTBQS and MGTBQS under development (where available).
    - (b) Select the first competency in the GTBQS (1.1).
    - (c) Select one of the three choices available for the competency:
      - (i) *Exempt* because:
        - 1) Competency statement not applicable to my position,
        - 2) Competency was modified and will be fulfilled via my OSS, or
        - 3) Other - provide justification.
      - (ii) *Equivalency* because:
        - 1) Experience,
        - 2) Training or education completed, or
        - 3) Other - provide justification.
      - (iii) *Need Developmental Activities*:
        - 1) Mentoring,
        - 2) On-the-job training,
        - 3) Self-study,

- 4) Training course, or
- 5) Other
- 6) You may select one or more developmental activities. For each learning activity selected, document your planned activities and projected completion dates, if known.

### Qualification Package Process and Content Requirements

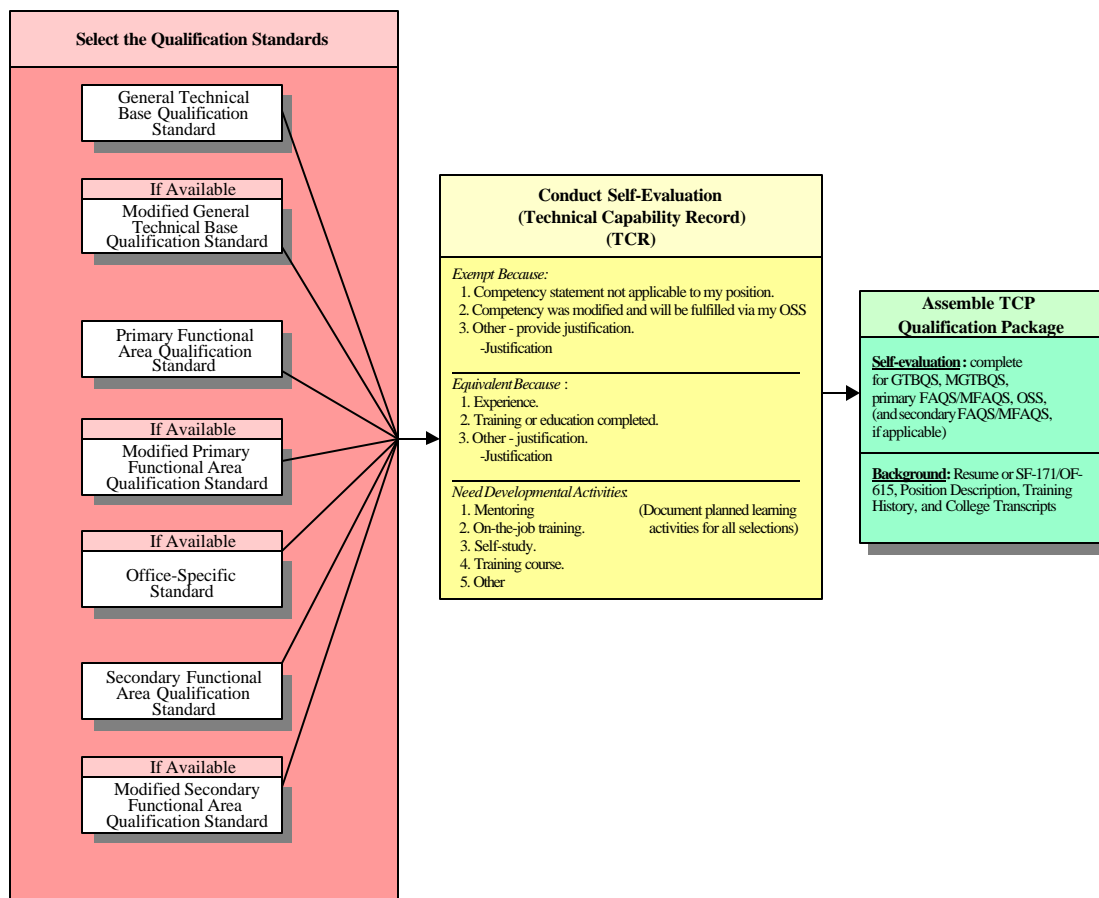


Figure 3

- (d) Repeat steps 6.(b) through (c)(iii)6 for all GTBQS competencies.
- (e) Repeat steps (b) through (c)(iii)6 for the MGTBQS under development (where available).
- (f) Repeat steps (b) through (c)(iii)6 for the primary FAQS, then the MFAQS under development (where available).
- (g) Repeat steps (b) through (c)(iii)6 for the OSS under development (where available).
- (h) If you have selected a secondary standard (not required), repeat steps (b) through (c)(iii)6 for the secondary FAQS and MFAQS (where available).

**c. Approval of Qualification Package**

Figure 4, *TCP Completion Process Flow Diagram*, illustrates what steps participants must take to complete the TCP. Figure 4 is described in sections 6.c through 6.e of this procedure.

- i. Upon completion, forward the qualification package (self-evaluation and background) to EM-7.1 who will forward it to a peer panel for review and approval.
- ii. The peer panel will forward their comments to the employee's supervisor for review and approval.
- iii. The results will be given back to the employee.
  - (1) *If package is approved*, proceed with completing the TCP as described in section 6.d.
  - (2) *If package is not approved*, revise the deficiencies as necessary as described in section 6.b of this procedure,<sup>2</sup> and resubmit for approval.

**d. Developmental Activities**

- i. Begin identifying learning activities that will meet competencies that "need developmental activities." Consult with EM-7.1, as necessary, to assist in identifying learning activities.
- ii. Update the TCR in TECR to document the planned training.
- iii. Complete training.
- iv. Update TCR in TECR to document completed training, completion dates, and training hours.

---

<sup>2</sup>A supervisor may not agree with employee's exemption or equivalency reasons, and may require the employee to update the record to include more developmental activities. The employee is responsible for providing ALL required background material for the purpose of comparing experience, education and training to equivalencies and exemptions.

---

- v. Repeat steps 6.d.i. through 6.d.iv. until all competencies for all qualification standards needing developmental activities have been completed.

**e. Evaluation and Approval of Employee's Technical Capability**

Upon completion of meeting competencies, participants will submit a request for approval of their TCR to their supervisor to complete participation in the program. Figure 4, *TCP Completion Process Flow Diagram*, illustrates the following procedures.

- i. Notify EM-7.1 of TCP completion and submit approval request through TECR.
- ii. EM-7.1 will forward TCR to peer panel for approval.
- iii. Peer panel will forward approval and/or comments to employee's supervisor.
- iv. Employee's supervisor is the final approval authority for participant's program completion.
  - (1) *If supervisor does not approve*, employee must review the comments of the peer panel and the supervisor, and attempt to correct deficiencies in steps 6.d.i through vii.
  - (2) *If supervisor approves*, he or she will submit electronic approval within the TECR application.
- v. The EM-7.1 administrator will issue a certificate of completion to the employee for the TCP.
- vi. The documented experience, education, and new learning illustrate that the employee has successfully met the rigors of an intense learning program and has, therefore, enhanced his or her technical capabilities in a functional area(s) related to the position he or she holds.

## **7. RECORDS**

**a. Records will be maintained by EM-7.1 for the EM TCP participants. EM-7.1 will:**

- i. Administer and maintain participants' collective TCRs in the TECR application.
- ii. Monitor, track, and record overall EM participation and progress.
- iii. Not be allowed to alter TCRs. The administrator in EM-7.1 has read-only rights to participants' records.

**b. Technical supervisors and staff participating in the TCP will:**

- i. Maintain background documentation that includes their: position description, resume or SF-171/ OF-615, college transcripts, and training history and provide a copy to EM-7.1.
- ii. Update and maintain their own TCRs in the TECR application.



**8. REPORTING**

- a. Participants will report their individual progress in the TCP as directed by their immediate supervisor.
- b. EM-7.1 will:
  - i. Report overall progress on a periodic basis to EM-1 and the EM Capability Agent to the Panel as required.
  - ii. Roll up status reports and statistical reports for managing the program.
  - iii. Use the information in the records and reports in developing an annual training plan for EM.
  - iv. Provide EM-1, Deputy Assistant Secretaries, Office Directors, supervisors, and participants respective summary or detailed reports as necessary.

TCP Completion Process Flow Diagram

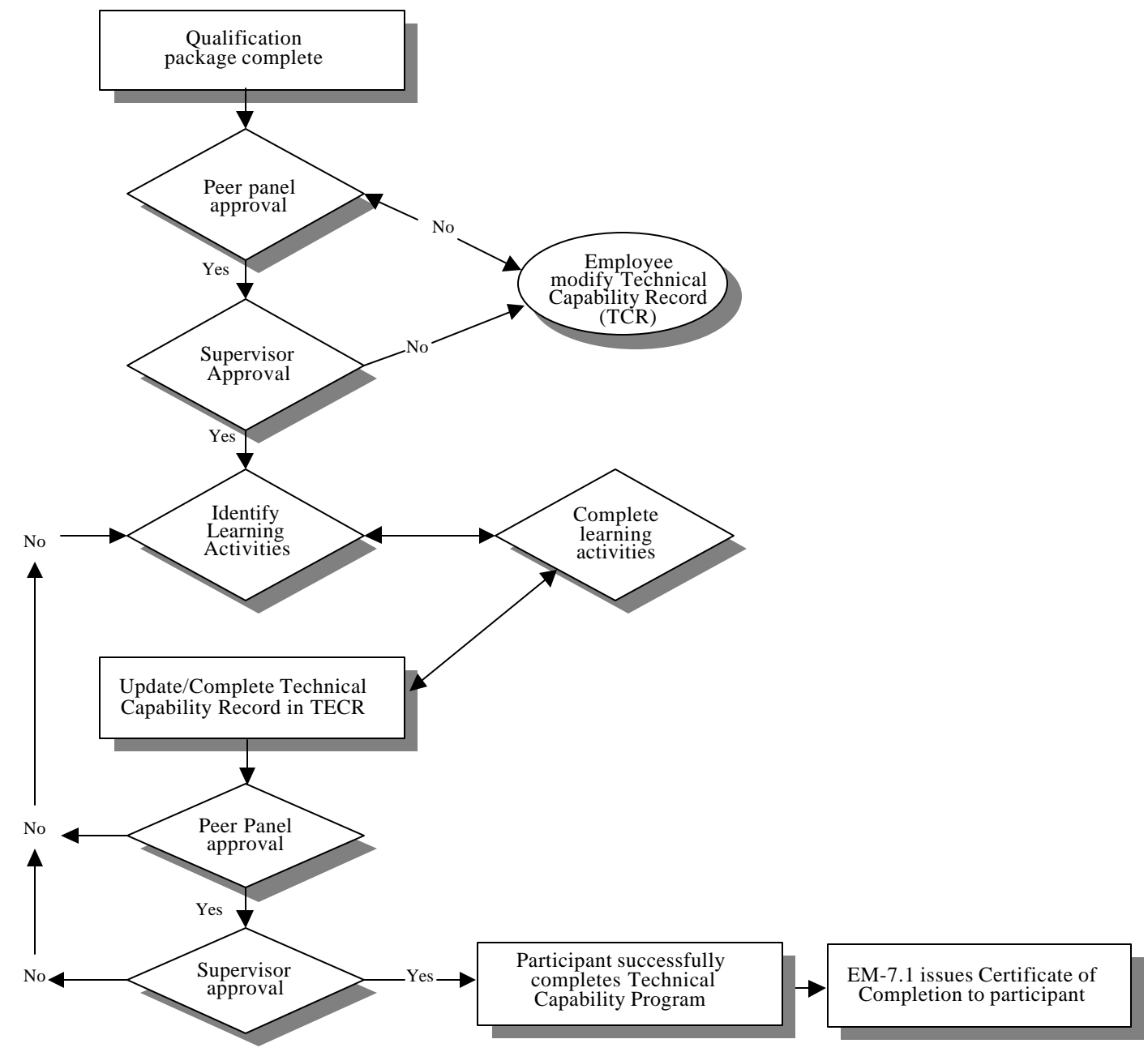


Figure 4